REMARKS

Introduction

Claims 1 – 8 were originally pending in the present application. Claims 1, 4, and 7 have been amended herein. No new matter has been added. Accordingly, claims 1 – 8 are presently pending for consideration in this application.

Claim Rejections

35 U.S.C. § 102(e)

Claims 1 – 8 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. US2005/0093276 to Hayes et al. A claim is said to be anticipated where each and every limitation of the claim can be found in a single reference. Independent claims 1, 4, and 7 have amended to include additional limitations directed toward the structure of the low profile sensor assembly. More specifically and as discussed in greater detail below, each of these claims has been amended to distinctly indicate that ***the base is fixed*** and that the upper slide member and intermediate guide member ***are both moveable relative to the fixed base***. Applicants respectfully submit that the Hayes et al. publication fails to disclose or suggest each element of the present invention as defined by the amended independent claims. Accordingly, the rejection of these claims based on 35 U.S.C. § 102(e) is respectfully traversed for the reasons set out below.

The Hayes et al '276. publication

The Hayes et al. publication discloses a vehicle safety restraint system 12 having air bags 16 and 17, a controller 14, and a seat sensor device 20. The seat sensor device 20 includes a printed circuit 22 a frame 24, and a plurality of Hall effect sensor assemblies 26. Each Hall effect sensor

assembly 26 includes a housing 44 having a first and second housing members 52 and 54, a Hall effect sensor 46, a magnet 48, and a spring 50. The first housing member 52 has a base 56 and a tube section 58 comprised of two opposing curved columns 68. ***The Hayes publication clearly indicates that the tube section 58 forms a part of the fixed first housing member 52.*** The tube section 58 does not move relative to the base 56. The columns 68 define an open area 70 and alignment slots 72 that slidingly receive the second housing member 54. The Hall effect sensor 46 is molded into the base 56. The second housing member 54 is also tube shaped with a hollow tube section 84 having a closed end top section 86. The magnet 48 is held within the hollow tube section 84 and is held upwardly in place against the closed top section 86 by the spring 50.

The Hall effect sensor 46 has three electrical leads 78 that are exposed through the bottom of the base 56. Terminals 94 are used to electrically and mechanically connect the sensor 46 to the printed circuit 22.

However, the Hayes et al. publication fails to disclose or suggest a vehicle occupant sensing system for detecting a condition of a vehicle seat employing at least one low profile sensor assembly having a housing that includes ***a fixed base, an upper slide member, and at least one intermediate guide member disposed between the upper slide member and the base***, where the upper slide member and the intermediate guide member ***are supported for movement toward and away from the fixed base*** in response to movement of said vehicle seat, and at least one sensor is operatively supported by the circuit carrier and fixed relative to the upper slide member and the base. The sensor is operable to detect movement of the upper slide member toward and away from the base as defined in amended independent claim 1 of the present invention.

Further, the Hayes et al. publication fails to disclose or suggest the structure described above in connection with a vehicle seat as defined in amended independent claim 4 of the present invention.

In addition, the Hayes et al. publication fails to disclose or suggest a method of manufacturing a vehicle occupant sensing system for detecting a condition of a vehicle seat that utilizes a low profile sensor assembly described above where the upper slide member and the intermediate guide member ***are supported for movement toward and away from the fixed base*** in response to movement of the vehicle seat, and sensor is operable to detect movement of the upper slide member toward and away from the base as defined in amended independent claim 7 of the present invention.

The Vehicle Seat Assembly of the Present Invention

In contrast to the related art, amended claim 1 of the present application discloses a vehicle occupant sensing system for detecting a condition of a vehicle seat that includes a circuit carrier and an electric circuit supported by the circuit carrier. The electric circuit presents a plurality of leads. The system also includes at least one low profile sensor assembly having a housing that includes ***a fixed base, an upper slide member, and at least one intermediate guide member disposed between the upper slide member and the base***. The upper slide member and the intermediate guide member are ***supported for movement toward and away from the fixed base*** in response to movement of the vehicle seat. At least one sensor is operatively supported by the circuit and fixed relative to the upper slide member and the base and operable to detect movement of the upper slide member toward and away from the base. The sensor includes a plurality of terminals corresponding to the plurality of leads presented by the electric circuit. A plurality of conductive connectors are associated with

the corresponding plurality of terminals and leads. The conductive connectors each include a body disposed for electrical communication with the associated terminal and at least one deformable blade extending into the circuit carrier and into electrical communication with the associated lead of the electric circuit. In this way, the conductive connector are mechanically attached to the circuit carrier while providing electrical communication between the sensor and the electric circuit.

Similarly, amended claim 4 is directed toward a vehicle seat including a lower seat cushion, a circuit carrier disposed adjacent to the lower surface of the lower seat cushion, and an electric circuit supported by the circuit carrier. The electric circuit presents a plurality of leads. In addition, claim 4 has been amended to recite the structure concerning the low profile sensor assembly that includes a housing having a fixed base, upper slide member and at least one intermediate guide member as discussed in greater detail above. Likewise, independent claim 7 has been amended in a similar manner.

Argument

Applicants respectfully submit that the Hayes et al. publication fails to disclose or suggest the invention described in claims 1, 4, and 7, as amended. Specifically, the Hayes et al. Hall effect sensor assembly fails to disclose or suggest a vehicle occupant sensing system or a vehicle seat having a low profile sensor assembly with a fixed base, an upper slide member, and at least one intermediate guide member, wherein ***the upper slide member and the intermediate guide member are supported for movement toward and away from the fixed base*** in response to movement of the vehicle seat as described in claims 1 and 4.

Similarly, the Hayes el al. publication fails to disclose or suggest a method of manufacturing a vehicle occupant sensing system that employs a low profile sensor assembly having a housing that

includes a fixed base, an upper slide member, and an intermediate guide member disposed between the upper slide member and the base, ***where the upper slide member and the intermediate guide member are supported for movement toward and away from the fixed base*** in response to movement of the vehicle seat as described in claim 7.

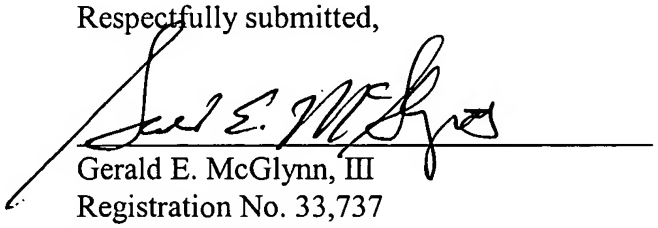
Rather, and in contrast to the present invention, the Hayes reference teaches a first housing member 52 that has a base 56 and a tube section extending upwardly from the base. The tube section 58 forms a part of the fixed first housing member 52. The tube section 58 does not move relative to the base 56. Col. 2, ¶ 29.

Thus, the Hayes reference fails to disclose or suggest the invention of amended claims 1, 4, and 7 of the present application. Claims 2 and 3 are each ultimately dependent upon claim 1; claims 5 and 6 are each ultimately dependant on claim 4; and claim 8 is ultimately dependant on claim 7. Each of the dependant claims adds perfecting limitations to their respective independent claim. As such, the Hayes et al. publication, standing alone or in combination with any other reference, does not disclose or suggest the subject invention and, even if it did, it could only be applied through hindsight after restructuring the disclosure of the prior art and in view of applicants' invention. A restructuring of the Hall effect sensor described in the Hayes et al. publication to derive applicants' invention would, in an of itself, be an invention.

Conclusion

The amendments set forth herein present this application in better form for consideration on appeal. Accordingly, applicants respectfully request that this amendment be admitted to pursuant to 37 CFR § 1.116 and that the rejection under § 102 be withdrawn. Moreover, in view of the above, applicants respectfully submit that the claims clearly distinguish over the prior art and are therefore allowable. Accordingly, applicants respectfully solicit the allowance of the claims pending in the present application.

Respectfully submitted,



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